TRENDS IN THE

U.S. PET FOOD INDUSTRY:

THE POTENTIAL FOR ALASKA SEAFOOD PRODUCTS



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Introduction

The U.S. pet food industry is a \$30 billion business. Bolstered by growing numbers of domestic and foreign pet populations, industry figures place average annual growth from 1994 through 2003 at over 9%.¹

Concerns among pet owners in the 1990s about the nutrition and health of their dogs and cats led to a trend toward premium, healthy pet foods and treats. This has translated into a growing market for specialty pet products in the U.S. and around the world.

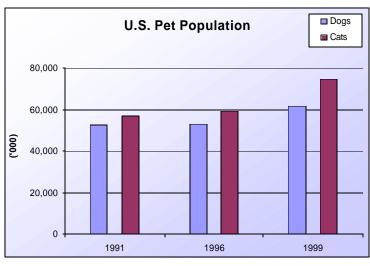
Research indicates today's pet owners are frustrated by the quality of many pet foods and attracted by the benefits of the omega-3 fatty acids found in fish oils. Alaska seafood based pet products may provide the type of alternative pet food sought by conscientious pet owners. Alaska provides an abundance of seafood by-products ideal for pet food. The flesh of chum salmon caught for roe, for example, is unpalatable to humans, but the State of Alaska requires full utilization of the material once harvested. Such inexpensive protein makes an ideal and abundant pet food ingredient. If properly developed and marketed, Alaska seafood not directed towards human consumption may provide a healthy, valuable pet food alternative.

¹ American Pet Products Manufacturers Association, Inc., 2002, www.appma.org.

DOGGY DEMOGRAPHICS

United States

The U.S. pet population is on the rise. In 1991, U.S. residents owned 52.5 million dogs; five years later, the dog population had grown slightly to just under 53 million. By the end of the decade, the number of dogs had risen to 60 million. Cat population levels climbed similarly from 57 million in 1991 to 59.1 million in 1996 to nearly 70 million in 2002 (Figure 1).



Export Markets

Though few nations rival the U.S. in pet ownership, large numbers of dogs and cats are kept as pets around the world, as evidenced in Figure 2. By 2002, roughly 10 million pet dogs inhabited Japan and upwards of 7.5 million pet cats lived in the U.K.

Figure 1 American Veterinary Medical Ass.

Another measure of the popularity and growth of pet ownership is the percent of households that harbor them. According to American Pet Products Manufacturers Association (APPMA) surveys, 56% of U.S. households owned at least one pet in 1988; by

2001, pet ownership grew to include 62% of U.S. households. About half of Japanese households own cats or dogs. More than 25% of Canadian households own dogs and 38% own cats. Australia has one of the highest incidences of pet

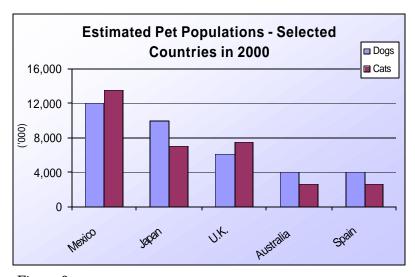


Figure 2

USDA/Japanese Market News/Petnet/PFMA

ownership in the world with 64% of households owning pets in 2002; of those Australians who did not own a pet when surveyed, 53% reported that they would like to do so in the future (Figure 3).

With pet ownership on the rise, the pet food industry must grow to accommodate the swelling population of family animals. This provides an excellent opportunity for pet food manufacturers to enter the market or expand production.

Households with Pets By Country			
	% of Households		
Japan	50%		
U.S. 2001	62%		
Australia	64%		

Figure 3 Petnet/APPMA/Japanese Market News

PET OWNER PERSPECTIVE

Pet Ownership

Dogs and cats make up the majority of pets owned by U.S citizens. According to the American Pet Product Manufacturers Association, almost 40% of all homes owned dogs and 35% owned cats in 2000. Marine and fresh water fish reside in upwards of 20% of U.S. homes. Birds, reptiles, and small animals like rodents are each found in roughly 5% of U.S. homes. (Figure 4).

Percentage of Pet Ownership among Total U.S. Households (2000)			
Own Any Pet	62%		
Dogs	39%		
Cats	34%		
Freshwater fish	12%		
Birds	7%		
Small animals	5%		
Reptiles	4%		
Saltwater fish	7%		

Figure 4 APPMA

Income

Research indicates only a slight difference in dog and cat ownership between income levels of U.S. households. According to the U.S. Census Bureau, 20% – 23% of all households owned a cat in 1991, regardless of income level. Similarly, dog ownership ranged from 20% - 24% in the same year. While these figures are somewhat lower than those supported by other surveys, the results nevertheless suggest that pet ownership is popular across a wide range of economic classes.

By 1996, pet ownership percentages did not change greatly, although shifts are notable. Cat ownership by income level ranged between 20% - 24%. Dog ownership ranged from 20% – 25%. There was an increase in the number of animals kept by households with annual incomes in excess of \$60,000. Meanwhile, pet ownership in households with annual income under \$60,000 fell slightly in all classes (Figure 5). With increased numbers of pet owners in top earning categories, more expensive premium pet foods and treats may more easily penetrate the market. Additionally, though the popularity of pet ownership across households fell slightly, the actual population of pet dogs and cats increased.

Some retailers claim that pet food producers enjoy relative immunity from economic recessions in the U.S. According to the Central New York Business Journal, many pet suppliers in Central New York maintain that pet food sales do not drop significantly during

recessions. Their explanation is that pet owners consider pet food an essential product and continue to purchase it even while other spending is reduced.

Dog and Cat Ownership by Annual Household Income between 1991 and 1996					
1991 - Cat 1996 - Cat growth	\$12,500- \$24,999 20% 19.70% 0%	\$25,000- \$39,999 23% 21.50% -2%	\$40,000- \$59,999 22% 21.20% -1%	\$60,000 and over 20% 23.70% 4%	
1991 - Dog 1996 - Dog <i>growth</i>	20% 19% -1%	24% 22% -2%	22% 22% -1%	20% 25% 5%	

Figure 5 U.S. Census Bureau

Pet Diets

In addition to profiting from the rise in pet populations worldwide, the pet food industry benefits from changing attitudes about the importance of pet care and nutrition. Many pet owners become strongly attached to their pets and treat them as members of the family.

In the 1990s, U.S. residents became more concerned with human nutrition and many pet owners transferred that concern onto their dog and cat companions, creating a greater demand for specialty or premium pet food. These items include products that use natural ingredients, lack preservatives, use real meat instead of meals or by-products, have low sodium contents, and include popular nutritional ingredients such as beta carotene and omega 3 and omega 6 fatty acids.

Media coverage of the pet food industry also contributes to the demand for quality ingredients in pet foods. Many consumers are aware today that pet food manufacturers routinely use undesirable ingredients in their products including euthanized pets and road kill. Pet food producers using wild Alaska seafood for dog and cat food have the potential to penetrate the premium pet food market at a time when owners are concerned about the health of their animals and the quality of pet food. The Alaska company Budget Feed & Farm, for example, produces a salmon-barley dog food that has gained the acceptance and enthusiasm of many Alaskan dog owners that have traditionally used salmon as dog food.

Dog and cat owners aren't the only markets available for Alaska seafood pet products. Many non-vegetarian dry fish foods utilize fish. Alaska manufacturer OmegaSea
{http://www.omegasea.net/} targets the aquarium market and produces a variety of flake and pellet fish foods using salmon, black cod, halibut, krill, shrimp and other ingredients. They claim to be the only fish food producer to use fresh seafood instead of fishmeal; this may have growing market appeal if aquareists follow the same trends toward premium food as dog and cat owners.

Pet Snacks

In addition to pet food, pet treats continue growing in popularity among U.S. dog and cat owners. According to a recent survey by the American Pet Association, 28.5 million dog owners bought Christmas gifts for their dogs in 1999 and 37 million cat owners bought Christmas gifts for their cats. Additionally, 10 million dog owners and over 13 million cat owners in the U.S. celebrated their pets' birthdays. While not all gifts involve edible treats, this indicates a substantial number of pet owners purchasing specialty products for their animals.

"Healthy" pet treats are entering the market along with premium pet food. In 2000, Ralston Purina Co. marketed a new line of dog and cat treats designed to increase overall health as well as the health of teeth and bones, the immune system, skin and coat, and for the elimination of hairballs. The Alaska company Arctic Paws {http://yummychummies.com/} successfully markets a line of salmon based cat and dog treats by capturing the rugged image of Alaska, the historic relationship between sled dogs and salmon and the health benefits of salmon including its high omega-3 fatty acid content.

A number of non-Alaskan companies also produce salmon treats, some of which advertise the use of wild Alaska salmon with its omega 3 content and natural appeal to dogs and cats. Some companies market their salmon dog and cat treats as good for allergy sensitive animals, targeting a niche market of pet owners with allergy-prone dogs and cats. Seafood pet treats could take the form of dried skins, biscuits, jerky, dried bits, strips and even fins, tails and collars. The variety of Alaska seafood pet treats is limited only by the imagination of manufacturers. While salmon is established in the U.S. pet food/treat market, other commercially caught Alaska species could well find a receptive market among today's pet owners.

Omega-3 fatty acids

One trend of particular interest to pet food/treat producers using seafood in their products is the current interest in the health benefits of omega-3 fatty acids. Found in fish oil, omega-3 is commonly believed to benefit the skin and coats of dogs and cats by preventing flakiness, dullness, excessive shedding and joint inflammation.

According to the Journal of the American Veterinary Medical Association, omega-3 fatty acids are also important, if not requisite, for prenatal and post-natal neurological development in dogs and cats. It may also prevent retinal degeneration in developing puppies and kittens and decrease deterioration in the eyes of adult animals. Including omega-3 fatty acids in the diets of dogs and cats of all ages and reproductive phases could be of significant benefit to those animals.

Seafood based dog and cat food could naturally provide these important fatty acids to aid the skin, coat, eyes, and neurological development of pet dogs and cats.

According to a 2000 survey by Ralston Purina, 33% of dog owners and 26% of cat owners have either considered or used nutritional supplements for their pets, indicating that many pet owners feel a need to amend the diets of their animals (Figure 5).

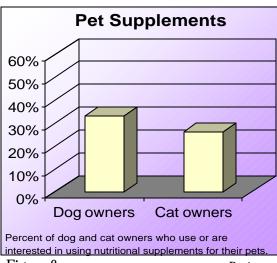


Figure 6 Purina

EXPORT MARKET

Export growth

Pet food export from the U.S. is a billion-dollar business. Export growth was particularly strong at the end of the 1990s, increasing 30% in four years to reach \$983 million by 2001. Canada, Japan, and Mexico were the major destinations of exported U.S. pet food in the late 1990s (Figure 6).

Top Ten U.S. Pet Food Export Markets in 2001 Growth						
_	1997	1998	1999	2000	2001	1997-2001
Japan	138, 416	140, 484	151,385	248,620	263,624	90%
Canada	203,695	212,596	211,783	229,042	236,848	16%
Mexico	41,089	58,914	62,862	116,113	234,860	471%
Netherland	17,428	12,465	16,546	25,014	20,526	18%
Belgium	26,016	16,014	6,922	11,402	16,007	38%
Australia	10,403	6,849	10,185	13,166	14,872	43%
Italy	32,031	31,349	17,502	15,298	14,391	-55%
U.K.	24,302	23,259	22,462	12,339	12,009	-51%
Taiwan	18,011	14,963	9,257	10,501	10,818	-40%
Korea	8,812	5,066	6,378	7,865	10,135	15%

Japan
Exports to Japan
jumped
significantly
between 1997 and
2000, overtaking
Canada as the
leading importer
of U.S. pet food.

Figure 7

U.S. Census Bureau

According to the Japanese Market News, the Japanese pet population grew rapidly in the 1980s due to increases in leisure time, income, and the incidence of solitary lifestyles in which pets offer companionship. The pet food trend in Japan is for healthy food with such ingredients as green tea, (for the deodorization of pet wastes), avocado, and bio-flavinoids, (for tooth decay), indicating that a market exists for premium, healthy pet food and treats. Additionally, seafood pet food/treat producers may find a niche market among Japanese cat owners who prefer fish flavored food to chicken, beef, or other pet food flavors.

The demand for pet food in Japan is expected to grow for several reasons:

- pet owners have fewer traditional leftovers available for pets;
- the variety of pet food is increasing for animals of different life stages;
- more owners are turning to commercial foods.

In 1998, the U.S. was Japan's largest importer with 38.7% of the market share.

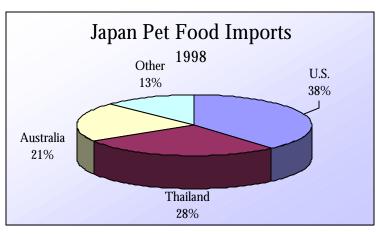


Figure 8 Japanese Market News

Mexico

Exports of pet food to
Mexico also rose
precipitously after 1999.
USDA's Foreign
Agricultural Service (FAS)
recognized Mexico's pet
food market potential in the
late 1990s when the U.S.
captured an overwhelming
98% of the import market.

Mexican consumption of pet food doubled between 1997 and 1998, and the pet food market there is likely to grow as owners continue to turn to commercial pet food.

Canada

In 2000, USDA's Federal Agricultural Service (FAS) reported that trends in western Canada made it a prime destination for U.S. pet food. With human population in the region booming, the number of pets continue to grow; simultaneously, western Canadians are becoming more concerned with health and nutrition, a trend which extends to the purchase of dog and cat food. Increasingly, owners are turning to premium pet food/treats and to pet foods that include specific ingredients for enhanced nutrition and/or dental health. The same trends occur to a lesser degree in other parts of the country. In 1997, U.S. imports comprised 25% of the total pet food market in Canada.

Spain: Spain is also turning to premium pet food. At the close of the 1990s, a strong economy led to an increase in demand for quality pet products. Though domestic production is on the rise and U.S. pet food exports to Spain have diminished in general the FAS stated in 2002 that "significant opportunities remain for high quality U.S. pet food, snacks, and treats."

Korea: Another potential market identified by the FAS is Korea. Korean dog ownership is swelling, prompting dog food imports to grow at an annual average rate of 67% from 1991 to 2000. Sixty-four percent of those imports originated in the United States (Figure 8). Sales

are expected to grow 10-15% annually as Koreans become more attached to their dogs, incomes increase and commercial pet food becomes more widely used. Koreans already believe in the superior quality of U.S. pet food, giving the U.S. an advantage over other markets.

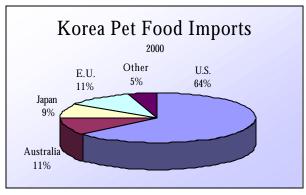


Figure 9 USDA

Others: Smaller potential markets, including Austria, Singapore and Russia, are also increasing their premium pet food imports and/or experiencing growth in pet populations. In the mid-1990s, Russian imports of U.S. pet food increased over 300% in four years. Though currently supporting small markets, these nations are likely to follow trends toward growing consumer interest in premium commercial pet food.

CONCLUSION

Growing numbers of U.S. and foreign pet owners, (catering to a growing number of pets), became increasingly concerned with their pets' nutritional health in the 1990s, a trend which led to increased sales of premium pet foods with pure ingredients and health benefits. Pet food markets around the world grew during the same time and will likely continue to do so as pet ownership increases and commercial foods become more popular, opening many opportunities for pet food manufacturers. With an abundance of seafood waste and flesh unfit for human consumption produced annually, Alaska's seafood industry provides a rich supply of raw seafood available to the pet food manufacturer.

Pet food products made with Alaska seafood might take advantage of current trends in the pet food market in several ways. Premium pet foods made with "real meat" are increasing in popularity among both dog and cat owners and fish owners. Foreign markets are importing more and more premium U.S. pet foods, including the large Japanese market with its interest in healthy pet food and fish flavored cat food. The popularity of omega-3 fatty acids and its source in fish oil provides another boon for seafood pet food producers. The pet food treat industry is already catching on to the market appeal of salmon treats, paving the way for new and innovative Alaska products. With rising pet numbers and a growing export market, a promising opportunity exists for the production of new pet foods and treats utilizing the abundant seafood by-products of Alaska.

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